Staff Report
Operations Department

Report To: Transportation Committee
Meeting Date: February 26, 2020
Report Number: CSOPS.20.011
Subject: Bridge Inspection Program
Prepared by: Mike Humphries, Engineering Design Technologist

A. Recommendations

THAT the Transportation Committee receive Staff Report CSOPS.20.011, entitled “Bridge Inspection Program” for their information.

B. Overview

The Transportation Committee has requested information related to Bridge Inspections in the Town of the Blue Mountains. This report provides a brief overview of the Town’s “Bridge Inspection Program” and the regulatory requirements.

C. Background

The Town has 32 Bridges and Culverts with a span of 3 metres or more. The Town is required to complete inspections of these structures in accordance with The Public Transportation and Highways Improvement Act, Ontario Regulation 104/97 as amended. The regulation states that “the structural integrity and condition of every bridge shall be determined through the performance of at least one inspection in every second calendar year under the direction of a professional engineer and in accordance with the Ontario Structure Inspection Manual”.

The objectives of this work are to maintain structures in a safe condition, protect and prolong the useful life of the structures, identify maintenance, repair and rehabilitation needs and provide a basis for a structure management system for the planning and funding of the maintenance and rehabilitation of structures.

The Ontario Structural Inspection Manual (OSIM) sets the standards for the detailed visual inspection and condition rating of structures and their components. This involves an element by element analysis of the structure. Each element is reviewed and their condition is assessed based on observations made by the inspector. These ratings are used to develop a Bridge Condition Index (BCI). A BCI of over 90 is considered excellent, a BCI of 70-90 is considered good, a BCI of 40-70 is considered Fair and a BCI of less than 40 is considered Poor. The report uses this BCI along with other factors to identify and prioritize repair/replacement needs and maintenance requirements including estimates of probable cost and proposed timeframe of
the work. The report also makes recommendations for load restrictions and identifies any structures requiring further investigation. This information is important and is used by the Roads and Drainage Division to help develop capital and operating budgets.

Recently, the Town has used the inspections to:

- Identify the need for the rehabilitation of Blacks Bridge;
- Identify that Bridges 2/3, on the 6th Sideroad, and Bridge 13, in Heathcote, require improvements or replacement due to age and deteriorating condition and that an Environmental Assessment is required for to assist in selecting a preferred solution;
- Identify and monitor safety issues with Clendenan Bridge (Bridge 16) resulting in its closure to vehicular traffic (and possibly a full closure); and to,
- Identify the immediate need for the replacement of a road crossing culvert on Pretty River Valley Road (Culvert 213).

D. Analysis

Not applicable.

E. The Blue Mountains Strategic Plan

Goal #5: Ensure Our Infrastructure is Sustainable
Objective #1 Develop a Long-Term Asset Management Plan for the Maintenance, Renewal and Replacement of Existing Infrastructure
Objective #2 Avoid Unexpected Infrastructure Failure and Associated Costs and Liability
Objective #3 Implement Best Practices in Sustainable Infrastructure
Objective #4 Ensure that Infrastructure is Available to Support Development

F. Environmental Impacts

Not applicable.

G. Financial Impact

The information from the Bridge Inspection report is used to highlight immediate and long term requirements for maintenance, repairs, rehabilitation and replacement of bridges and culverts over 3m in span. The inspections are typically conducted over the summer and the report completed in the early fall for use in developing the capital and operating budgets.

H. In Consultation With

Jim McCannell, Manager of Roads and Drainage
I. Public Engagement

The topic of this Staff Report has not been subject to a Public Meeting and/or a Public Information Centre as neither a Public Meeting nor a Public Information Centre are required. Comments regarding this report should be submitted to Jim McCannell, managerroadsdrainage@thebluemountains.ca

Respectfully submitted,

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